ABSTRACT

A new architecture is proposed for making optical cross connect in wavelength division multiplexed networks. The value of optical networks incorporating all-optical cross connects is typically associated with being able to selectively route individual channel wavelengths through several network nodes without performing optical-electrical and electrical-optical conversion. From a network perspective, most work on the optical cross connect architectures have been concentrated on the highest possible capability for the cross-connect itself. The problem with considering optical cross connect architectures in isolation without attention to the rest of the network may lead to unnecessarily complicated hardware. In the proposed architecture, architecture considers the network as a whole and significant cost reductions as well as complexity reductions are realized.